REMARKS

This Amendment is fully responsive to the non-final Office Action dated September 24, 2008, issued in connection with the above-identified patent application. Claims 1, 6-16 and 19 are pending in the present application. With this Amendment, claims 1 and 19 have been amended. No new matter has been introduced by the amendments made to the claims. Favorable reconsideration is respectfully requested.

At the outset, the Applicants thank Examiner Tekle for granting the personal interview conducted on July 16, 2008 and the telephone interviews conducted on October 6, 2008 and October 7, 2008 with the Applicants' representative.

During the personal interview on July 16, 2008, the present invention (as recited in independent claim 1, as an exemplary independent claim) and the Hatanaka and Nakamura references were discussed in detail. During personal interview and the telephone interviews the present application and application serial no. 10/712,341 (i.e., a related application) were discussed.

Specifically, during the personal interview, it was noted that Hatanaka and Nakamura (cited in application serial no. 10/712,341) fail to disclose or suggest the following features: a) recorded recovery data with AV data, wherein the recovery data is interleaved with AV data on the recording medium during AV data recording; b) recorded interleaved recovery data used for restoring management information for the AV data when AV data recording did not end normally; and c) recorded interleaved recovery data that contains, in relation to the AV data, file management information, recording address information, playback time information, and a start address for an I-picture. In contrast, it was noted that Hatanaka and Nakamura appear to disclose the use of a parity or error bit that identifies the existence of an error, but does not include recovery data, let alone recovery data including all the information noted above.

At the conclusion of the interview, the Examiner agreed that the cited prior art failed to clearly disclose or suggest at least the interleaving of recovery data with AV data during AV data recording. However, the Examiner also indicated that such interleaving of data was common in MPEG technology. More specifically, the Examiner indicated that MPEG technology includes the use of some form of recovery data interleaved with AV data for recovering lost data during

AV data recording. In response to this, it was noted that all the cited prior were examples of MPEP technology and none of the cited prior art clearly disclosed or suggested the use of recovery data interleaved with AV data during AV data recording. The Examiner indicated that additional information supporting his position with regard to MPEP technology would be provided in a subsequent Office Action in the present application.

During the telephone interviews, the Office Action dated September 24, 2008 was discussed. Specifically, after a detailed review of the Office Action, it was noted that no additional information regarding MPEG technology was included with the Office Action, as indicted during the personal interview conducted on July 16, 2008. Additionally, a detailed discussion regarding the present invention and the cited prior art took place. As a result of the discussion, an agreement was reached with regard to amending the independent claims to clearly distinguish the present invention from the cited prior (including the MPEG technology referred to by the Examiner).

Accordingly, proposed claim amendments were sent to the Examiner based on the discussion during the telephone interviews, and the proposed amendments were approved by both the Examiner and his Supervisor. Specifically, the proposed claim amendments amended independent claim 1 to point out that "the recovery data and the AV data are recorded in an alternating fashion and in contiguous areas on the recording medium during AV data recording." The Examiner indicated that the proposed claim amendments would distinguish the present invention from the cited prior art if filed in a formal response to the Office Action. It was also agreed that similar amendments would be made to the independent claims of application serial no. 10/712,341. The Examiner also indicated that further search may be necessary before making a final determination regarding the allowability of the claims.

In the Office Action, claims 1-4 and 6-26 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Higashida et al. (U.S. Patent No. 6,862,401, hereafter "Higashida") in view of Hatanaka (U.S. Publication No. 2007/0154184, hereafter "Hatanaka"). In the Office Action, the Examiner did not address claim 5. However, the Applicants assume that claim 5 was meant to be rejected along the above claims.

The Applicants have amended independent claims 1 and 19 to help further distinguish the

present invention from the cited prior art. Specifically, independent claims 1 and 19 have been amended to be consistent with the claim amendments approved by the Examiner and his supervisor on October 7, 2008.

For example, claim 1 (as amended) recites the following features:

"[a] recording apparatus for recording to a recording medium AV data containing at least one of audio data and video data, and recovery data for restoring management information for the AV data when AV data recording did not end normally, said recording apparatus, comprising:

a first generator operable to generate recovery data for each constant or variable period;

a second generator operable to generate AV data; and

a recorder operable to interleave the recovery data with the AV data, and to record the interleaved recovery data with the AV data on the recording medium during AV data recording, such that the recovery data and the AV data are recorded in an alternating fashion and in contiguous areas on the recording medium during AV data recording,

wherein the recovery data contains, in relation to the AV data, 1) file management information, 2) recording address information, 3) playback time information, and 4) a start address for an I-picture." (Emphasis added).

The features emphasized above in independent claim 1 are similarly recited in independent claim 19. That is, the recording method of claim 19 has been amended to point out that the recovery data and the AV data are recorded in an alternating fashion and in contiguous areas on the recording medium during AV data recording. Additionally, the features emphasized above are fully supported by the Applicants' disclosure (see e.g., Fig 2.; and on pg. 10, lines 13-20, pg. 14, lines 14-22 and Abstract, lines 16-18).

As noted during the interviews with the Examiner, the present invention (as recited in claims 1 and 19) addresses the problem faced during conventional digital recording when a loss of power occurs. That is, a loss of power during the recording of AV data can result in inconsistencies between the AV data and the management information. More specifically, recording of management information is stored at certain times (e.g., when a disc is ejected) during the recording process. However, if power is unexpectedly interrupted to a digital

recording apparatus (e.g., due to a power failure) before recording of the AV data is completed, the recording operation could end without the management information for the AV data ever being recorded. Thus, the management information is lost, creating an inconsistency between the recorded AV data and the corresponding management information. The present invention, as recited in claims 1 and 19, addresses this problem, wherein the cited prior art does not.

In the Office Action, the Examiner relies on Higashida in view of Hatanaka for disclosing or suggesting the features recited in independent claims 1 and 19. Specifically, the Examiner relies on Higashida for disclosing or suggesting all the features recited in the claims except for the claimed recording of data interleaved with the AV data during AV data recording. The Examiner relies exclusively on Hatanaka for disclosing this feature.

However, as noted above, the Applicants have amended independent claims 1 and 19 as suggested during the telephone interviews with the Examiner and subsequently approved by the Examiner and his supervisor on October 7, 2008. As amended, independent claims 1 and 19 point out that the recovery data interleaved with the AV data during AV data recording such that the recovery data and the AV data are recorded in an alternating fashion and in contiguous areas on the recording medium during AV data recording. As agreed during the interviews, this feature is not disclosed or suggested by the cited prior art.

Briefly, Hatanaka at ¶ [0029] discloses a packet composition of the transmitted digital broadcasting signal illustrated in Figs 2(A)-2(C). As described in ¶ [0029] of Hatanaka, the digital broadcasting signal has a packet composition of a header 50; data 51 representing video, audio or other data compressed using MPEG 2; and a parity bit 52. Accordingly, none of the data in the digital broadcasting signal of Hatanaka corresponds to the stored recovery data. At best, Hatanaka discloses the use of interleaved parity bits, which are binary digits (i.e., 1 or 0) that are added to ensure that the number of bits with a value of one in a given set of bits is always even or odd. However, parity bits are used as a common form of error detection, not for direct data recovery.

Nothing in Hatanaka discloses or suggests recording the recovery data interleaved with the AV data during AV data recording such that the recovery data and the AV data are recorded in an alternating fashion and in contiguous areas on the recording medium during AV data recording.

Moreover, Higashida fails to overcome the deficiencies noted above in Hatanaka.

Therefore, no combination of Higashida and Hatanaka would result in, or otherwise render obvious, independent claims 1 and 19 (as amended). Likewise, no combination of Higashida and Hatanaka would result in, or otherwise render obvious, claims 6-16 at least by virtue of their dependencies from independent claim 1.

In light of the above, the Applicants respectfully submit that all the pending claims are patentable over the prior art of record. The Applicants respectfully request that the Examiner withdraw the rejections presented in the outstanding Office Action, and pass this application to issue. The Examiner is invited to contact the undersigned attorney by telephone to resolve any remaining issues.

Respectfully submitted,

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